

CLAIMS

1. Apparatus for threshing legumes, comprising a frame which is movable over a ground surface, in which frame a drum which is rotatable about its at least substantially horizontally oriented axis of rotation is mounted, the drum surface of which is provided with one or more openings,

wherein a main threshing element is disposed within the drum, which main threshing element is rotatable about its longitudinal axis extending at least substantially parallel to the axis of rotation of the drum;

wherein at least one auxiliary threshing element is disposed within the drum, which auxiliary threshing element is rotatable about its longitudinal axis extending at least substantially parallel to the axis of rotation of the drum,

and wherein additional conveying means are disposed within the drum for conveying the legumes to be threshed through the drum, **characterized in that** the apparatus comprises detection means that measure an angle of inclination of the apparatus with respect to the horizontal, as well as control means that control the additional conveying means on the basis of the measured angle of inclination.

2. A threshing apparatus according to claim 1, **characterized in that** the detection means measure the angle of inclination of the apparatus with respect to the horizontal, seen in the longitudinal direction of the axis of rotation of the drum.

3. A threshing apparatus according to claim 1, **characterized in that** the detection means measure the angle of inclination of the apparatus with respect to the horizontal, seen in a direction perpendicular to the longitudinal direction of the axis of rotation of the drum.

4. A threshing apparatus according to claim 1, **characterized**

in that said detection means comprise an inclinometer.

5. A threshing apparatus according to claim 4, characterized in that said inclinometer is embodied as a mercury switch.

6. A threshing apparatus according to claim 1, characterized in that the detection means furthermore comprise a speed sensor for measuring the current driving speed of the conveying means.

7. A threshing apparatus according to claim 6, characterized in that the control means comprise a speed/angle of inclination profile, and in that the control means are arranged for deriving a desired driving speed of the conveying means in dependence on the measured angle of inclination, comparing the desired driving speed with the measured driving speed and driving the conveying means on the basis of said comparison.

8. A threshing apparatus according to claim 1, characterized in that the conveying means are disposed near a part of the drum surface that moves downwards during operation.

9. A threshing apparatus according to claim 1, characterized in that the conveying means are rotatable about their longitudinal axis, which extends at least substantially parallel to the axis of rotation of the drum.

10. A threshing apparatus according to claim 1, characterized in that the conveying means can be driven in a direction opposed the direction of rotation of the drum.